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Patent/TM/App/Serial # 10,607,061

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Applicants: Chu et al.

Confirmation No.: 3580

Patent No.: 6,804,966

Serial No.: 10/607,061

Issue Date: 10/19/2004

Examiner: Chen Wen Jiang

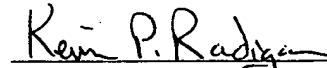
Title: THERMAL DISSIPATION ASSEMBLY EMPLOYING
THERMOELECTRIC MODULE WITH MULTIPLE ARRAYS OF
THERMOELECTRIC ELEMENTS OF DIFFERENT DENSITIES

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02 FC:1504

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As this patent was neither published or accorded a U.S. Publication Number, it is respectfully requested that the Publication Fee of \$300 be refunded and deposited into Deposit Account No. 09-0463 (IBM).

Respectfully submitted,


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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,061	06/26/2003	Richard C. Chu	POU902091US1	3580

TITLE OF INVENTION: THERMAL DISSIPATION ASSEMBLY EMPLOYING THERMOELECTRIC MODULE WITH MULTIPLE ARRAYS OF THERMOELECTRIC ELEMENTS OF DIFFERENT DENSITIES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
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EXAMINER	ART UNIT	CLASS-SUBCLASS			
JIANG, CHEN WEN	3744	062-003700			

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US006804966B1

(12) **United States Patent**
Chu et al.

(10) Patent No.: **US 6,804,966 B1**
(45) Date of Patent: **Oct. 19, 2004**

(54) **THERMAL DISSIPATION ASSEMBLY
EMPLOYING THERMOELECTRIC MODULE
WITH MULTIPLE ARRAYS OF
THERMOELECTRIC ELEMENTS OF
DIFFERENT DENSITIES**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/607,061**

(22) Filed: **Jun. 26, 2003**

(51) Int. Cl.⁷ **F25B 21/02; F25D 23/12;**
H05K 7/20

(52) U.S. Cl. **62/3.7; 62/259.2; 361/688;**
361/687

(58) Field of Search **62/3.7, 259.2,**
62/3.2, 3.6; 361/705, 690, 718, 676, 688,
687, 689, 697; 165/104.21, 104.33, 80.3

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(57) **ABSTRACT**

A thermoelectric assembly is provided for an electronic device, having a surface with a non-uniform thermal distribution between at least one first region and at least one second region, with the at least one first region having a higher heat flux than the at least one second region. The assembly includes at least one first area of thermoelectric elements and at least one second area of thermoelectric elements, which are configured to align over the at least one first region of higher heat flux, and the at least one second region, respectively, when the assembly is coupled to the device. The at least one first area of thermoelectric elements includes a greater density of thermoelectric elements than the at least one second area of thermoelectric elements for handling the higher heat flux.

17 Claims, 3 Drawing Sheets

